



The Solutions Network

Rochester, New York

Project Planning and Getting Buy-In

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Atmospheric Administration



Federal Mandate

- ❖ Improved energy efficiency requires less energy to be produced/imported.
- ❖ Environmental risks and impacts associated with exploration, production, conversion, storage, and transportation.
- ❖ Constructing additional electrical power plants are controversial - NIBMY
 - Nuclear - waste problem
 - Coal/oil fired - air & water pollution, Mines, Wells, etc.
 - Large hydro dams - changes to eco-systems
- ❖ Environmental Steward II

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NOAA* ISSUES

- ❖ More than 600 facilities & 13,000 employees
- ❖ Science-based missions and priorities
- ❖ Facility issues can be problematic
 - Operations and Maintenance
 - Energy Conservation
 - Health & Safety and Environmental Compliance
- ❖ Limited resources
 - FTEs (maintenance, energy, H &S/EC)
 - Funding: Program vs facility issues

* - Most Civilian Agencies face these issues

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Glass is half full

- ❖ Everyone afraid of "new" ideas
 - Engineers, Contracting, Budget, all others
- ❖ Technology phobia
 - "Geothermal won't work in (Add City)"
 - Green designs costs too much
 - Green will take longer to design/build
 - No one knows how to design/build Green
- ❖ Many others?

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HVAC Upgrade Project

- ❖ Atlantic Oceanographic & Meteorological Laboratory, Miami, FL
- ❖ Built in 1973 with 73,000 nsf
- ❖ Facility had to close several days in Summer of 2002 due to chiller failure
- ❖ Call for HELP!!

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Partnerships!

- ❖ Internal Team members
 - Facility Manager and staff
 - Purchasing Office/Contracting Officer
 - Regional Engineering Office
- ❖ External Team members
 - GSA – Area-wide Contract Vehicle
 - Florida Power and Light – Utility
 - DOE/FEMP

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Results

- ❖ Thermal Storage and Lighting project designed and installed less than nine months
- ❖ \$40,000 in annual savings
- ❖ \$57,000 in utility rebates (20% of project - \$287,000 – <6 yr ROI)
- ❖ Facility lighting upgraded
- ❖ Team Presented DOE FEMP Award
- ❖ Facility selected as a DOE Showcase facility

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AOML Thermal Storage



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New Construction

- ❖ National Weather Service
- ❖ West Coast and Alaska Tsunami Center
Palmer, Alaska
- ❖ 6,690 sf operations facility
- ❖ Mid-Level managers pushed LEED Requirements
- ❖ Faced typical hurdles

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USGBC/LEED

- ❖ Self-assessing rating system.
 - Based on accepted energy and environmental principles.
 - Balance between proven practices and emerging concepts.
- ❖ Evaluates environmental performance from "whole building" perspective over building life-cycle.
- ❖ Provides green building standards.
- ❖ Require A/E Design Team Responsible for meeting requirements

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Internal/External Coordination

- ❖ Providing workshops on sustainable design to engineers and managers
- ❖ Including sustainable design considerations on all NOAA funded construction grants.
- ❖ Signing collaborative agreements for sustainable design concepts.
 - Geothermal Consortium
 - Department of Energy/FEMP
 - National Renewable Energy Laboratory

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"Green Marketing 101"

- ❖ Provided LEED training
 - NWS HQ engineers and managers
 - NWS contract A/Es
 - NOAA engineering managers
 - Alaska NWS Regional managers
- ❖ Created Design Team
 - Creative managers
 - Seek solutions, not problems

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Results

- ❖ Completed on time and under budget
- ❖ Employees very satisfied!
- ❖ First LEED Certified Facility:
 - State of Alaska
 - Department of Commerce
 - NOAA
- ❖ DOE/FEMP Showcase Facility
- ❖ Caribou, ME Weather Forecast Office
 - LEED Silver Certification
- ❖ All future NOAA facilities to be LEED

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